

Figure 1: Architecture of a Private Marketplace

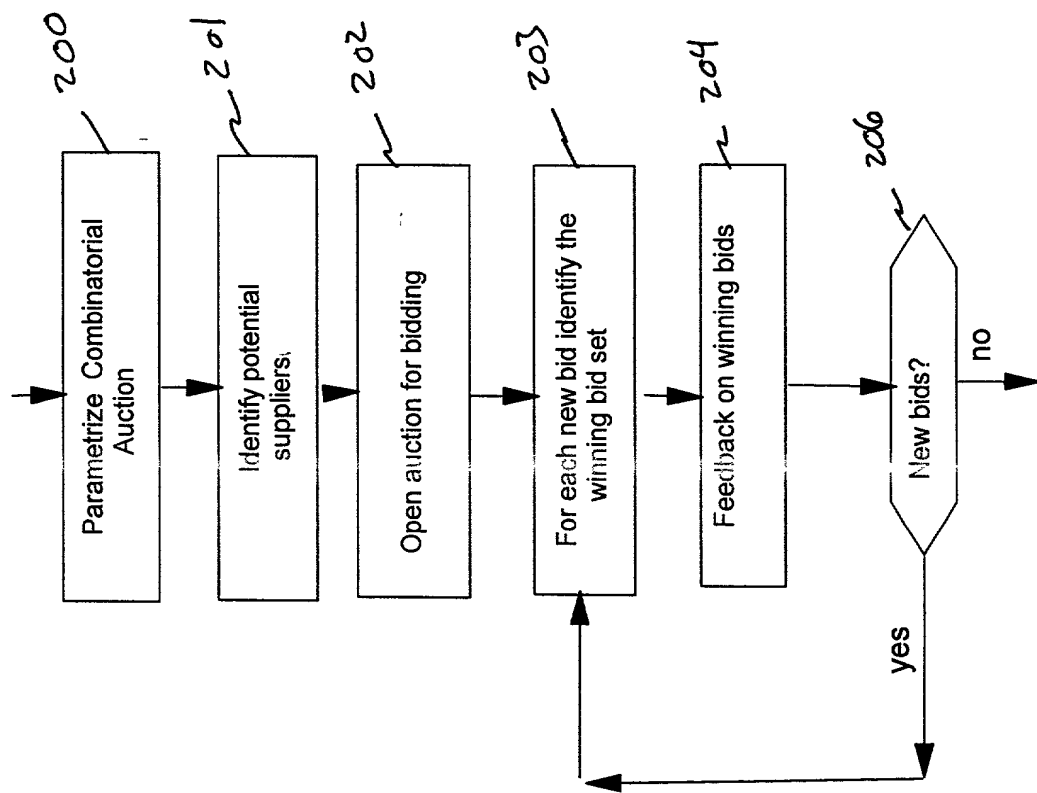


Figure 2: Information flow for setting up an auction

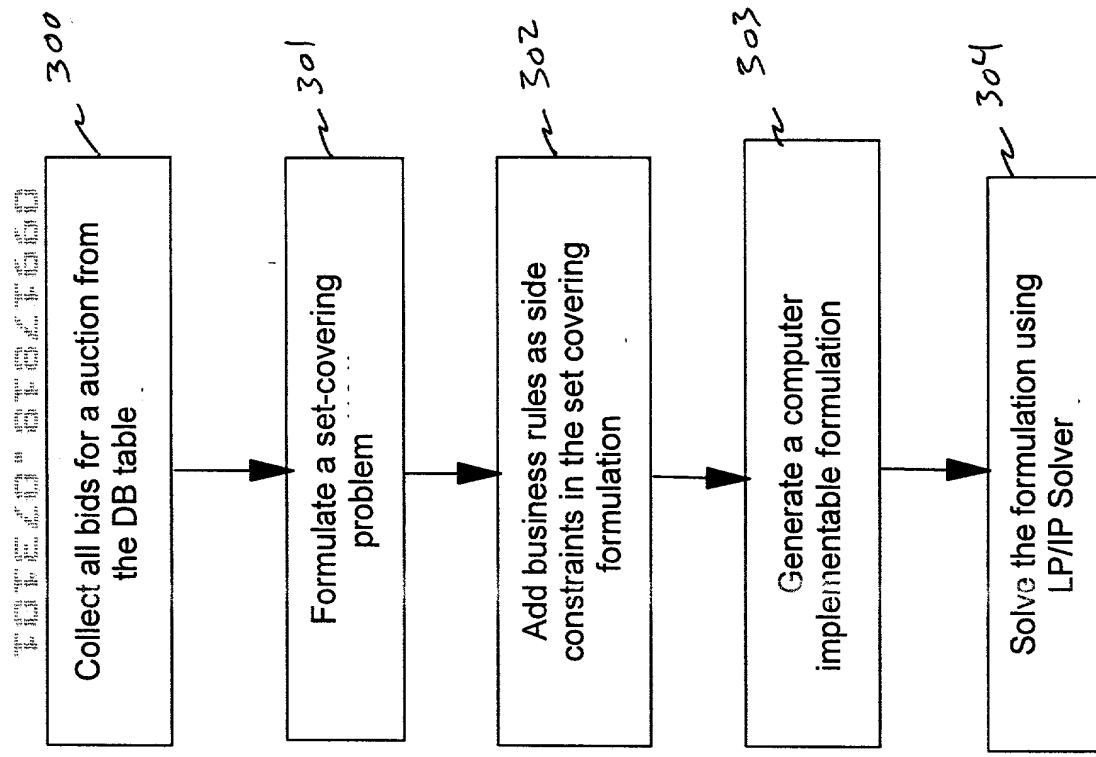


Figure 3: System Level Flow for Solving Set Covering

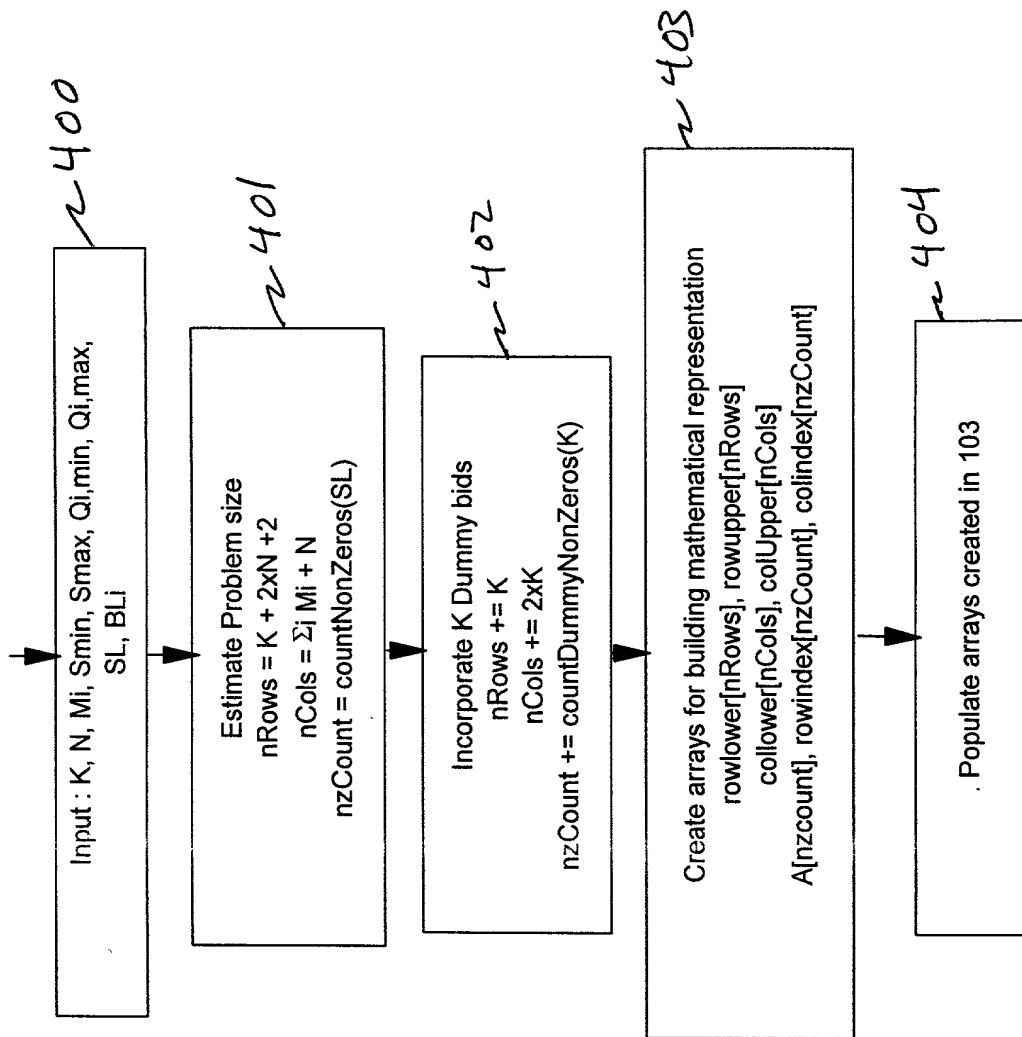


Figure 4: HighLevel Flow for Creating a Computer Implementable Representation

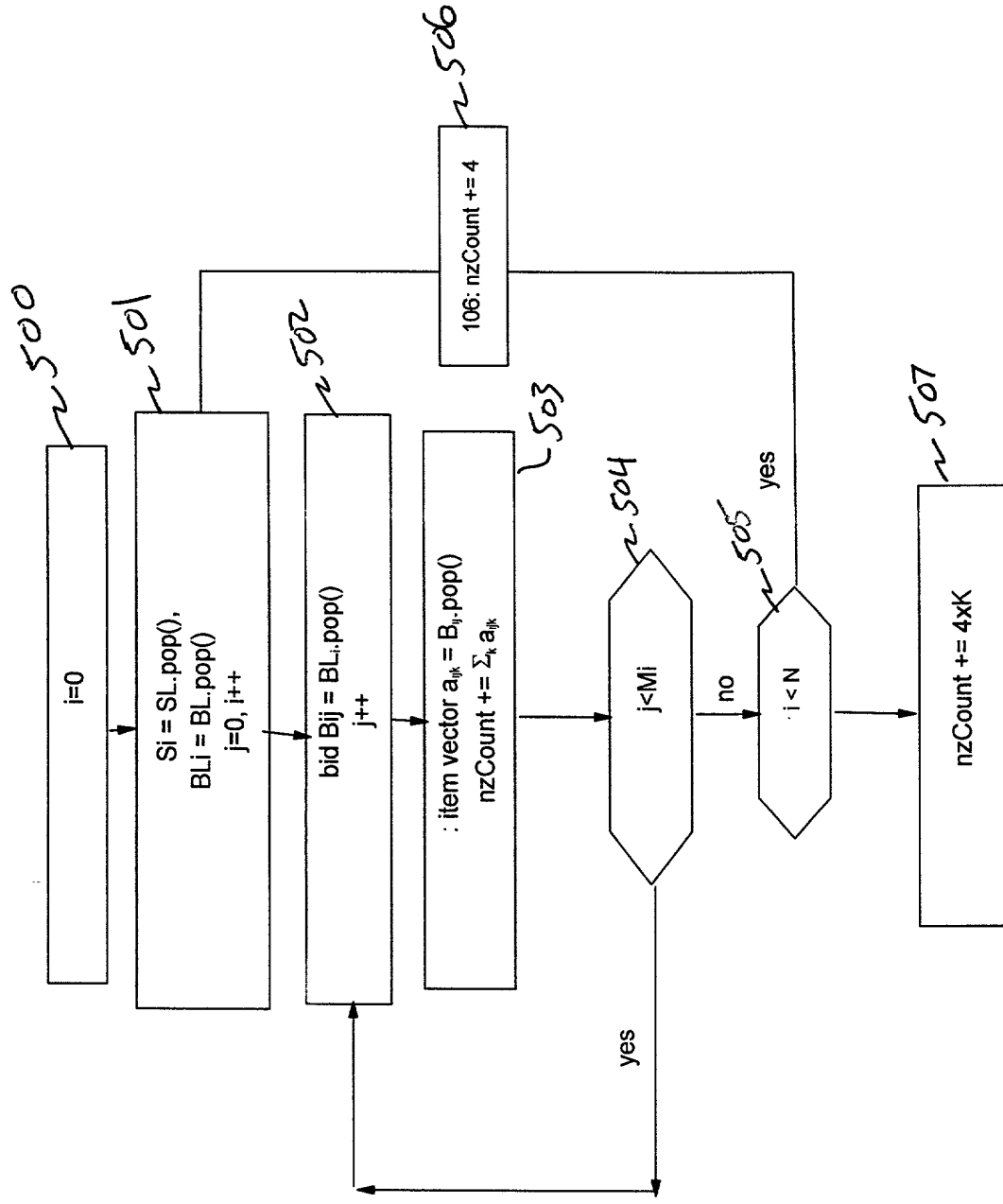


Figure 5: Count non-zeros

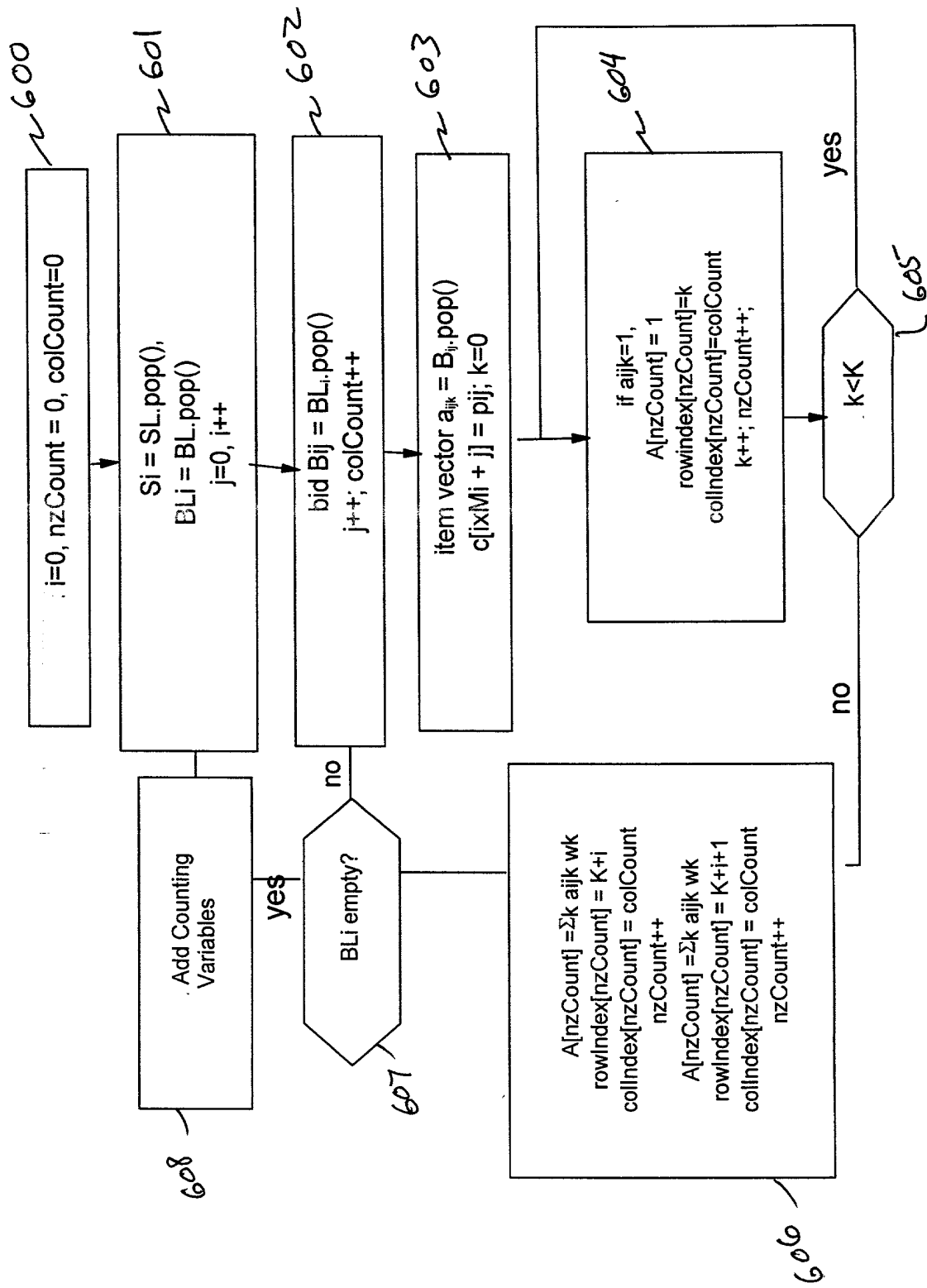


Figure 6: Populate Constraint Arrays

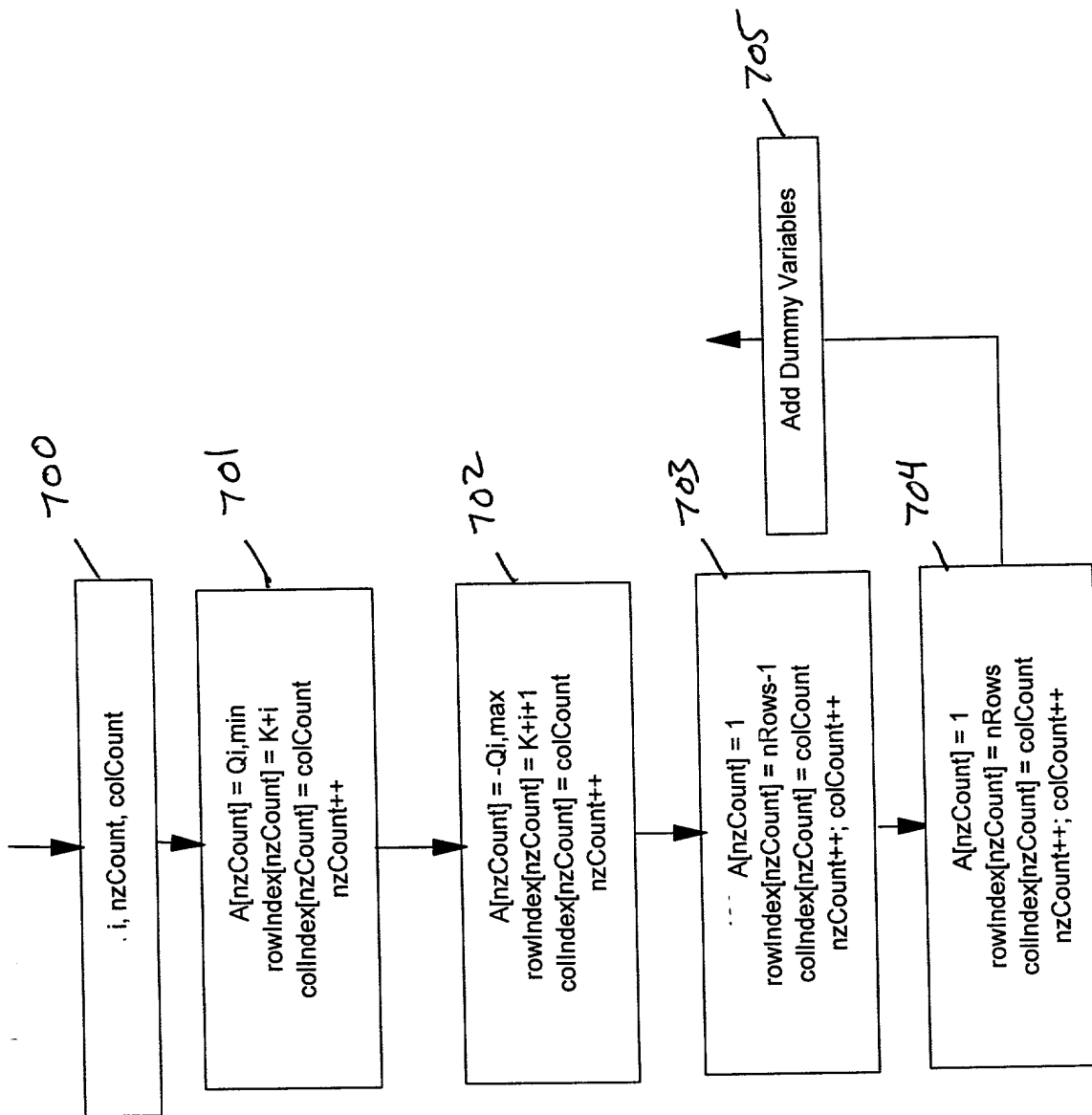


Fig 7: Add Counting Variables

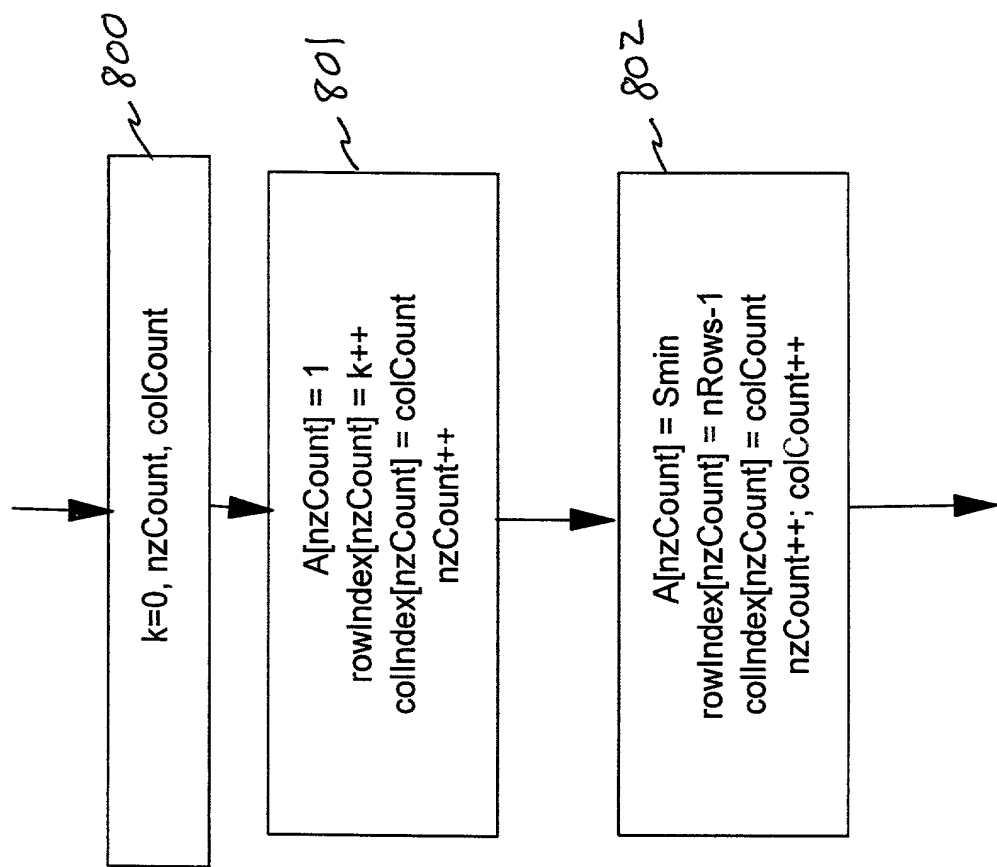


Fig. 8: Add Dummy Variables



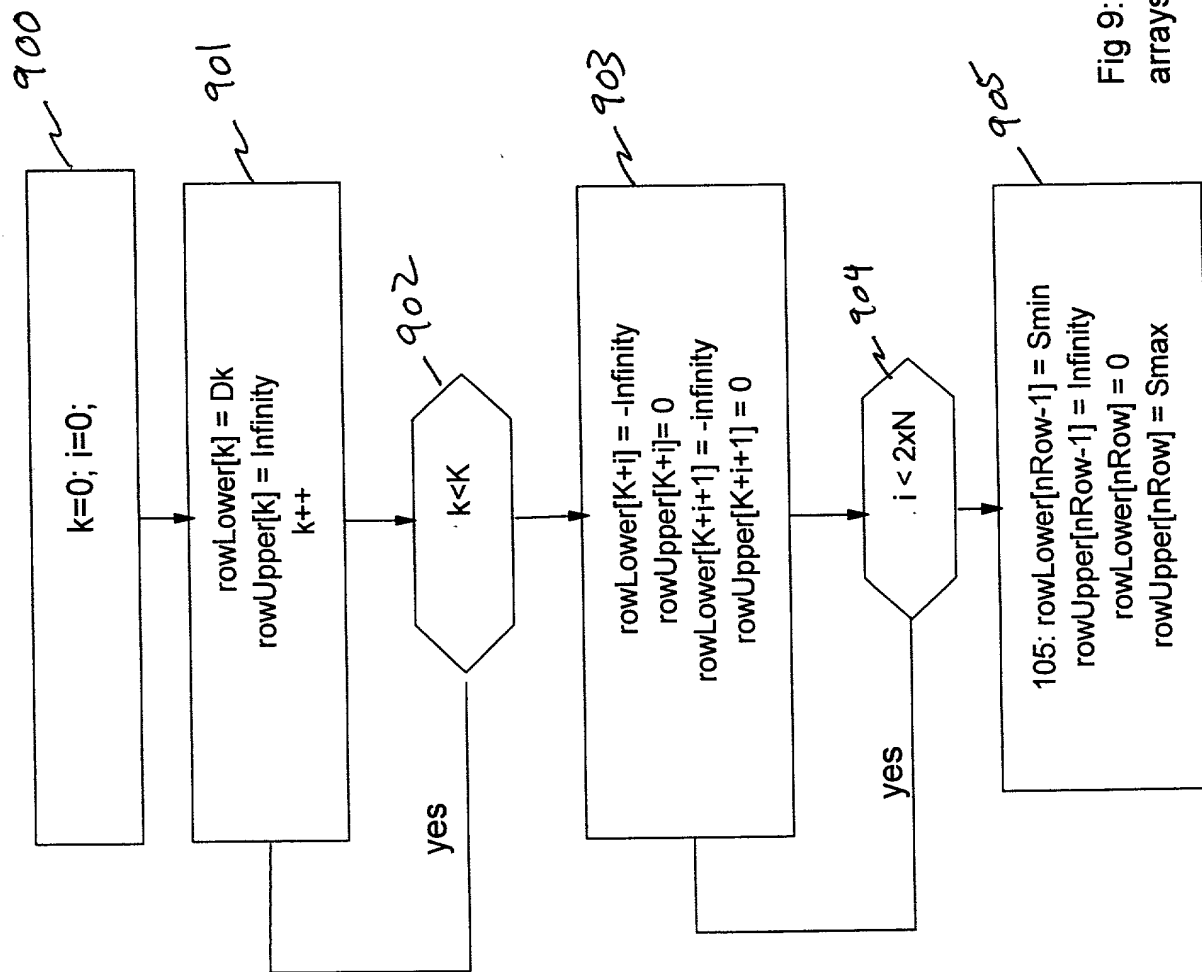


Fig 9: Populate row bounding arrays

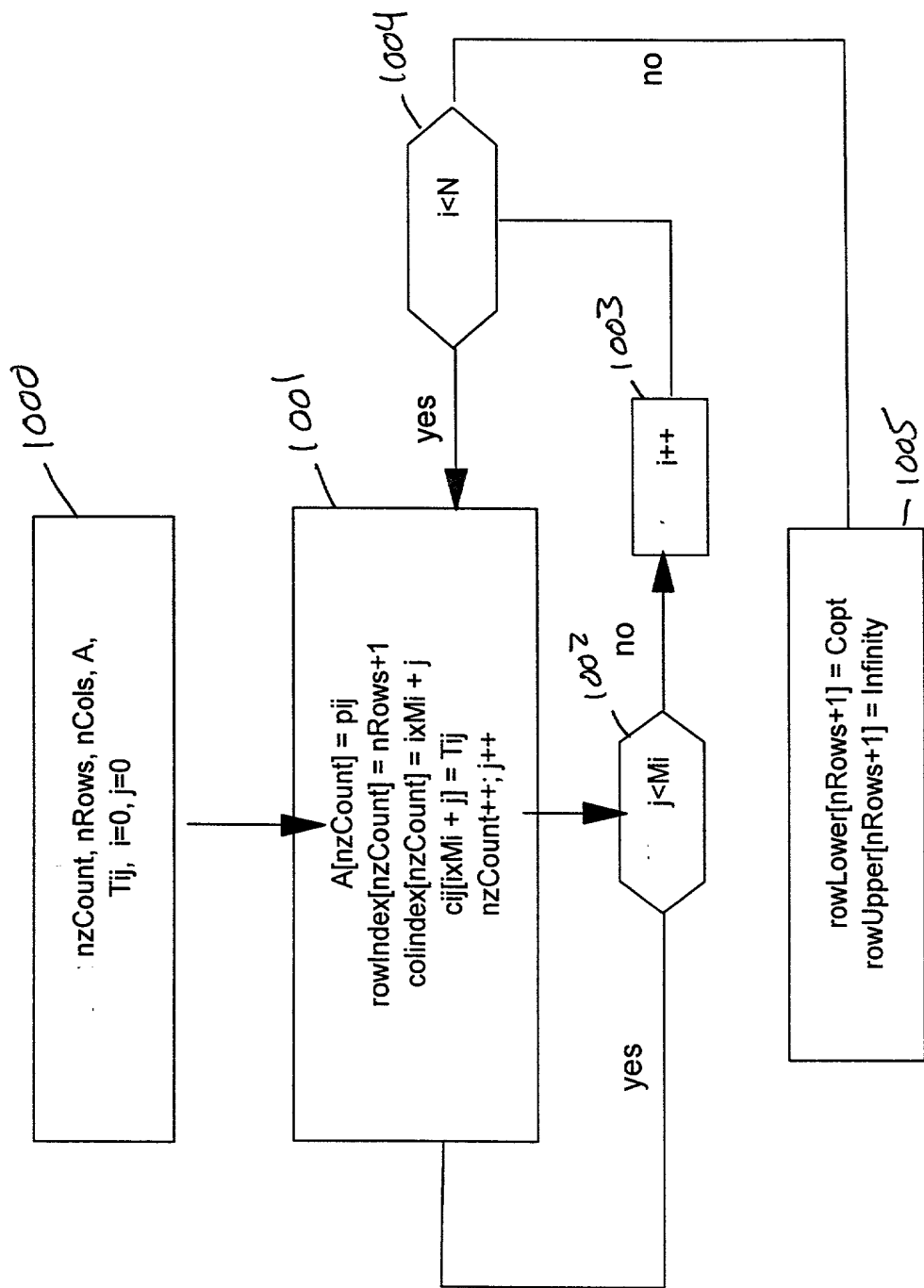


Fig 10: Add cost constraint and secondary objective

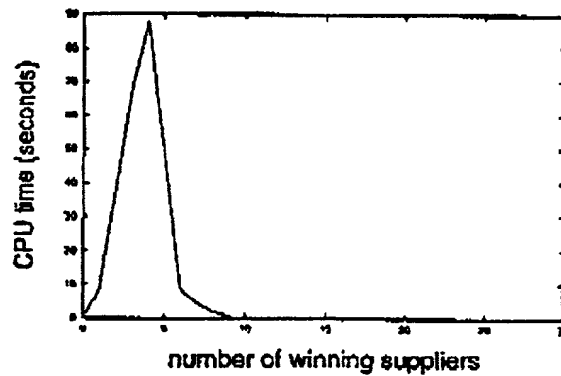


FIG. 11(a) Varying the permitted number of winning suppliers constraint (minimum = maximum)

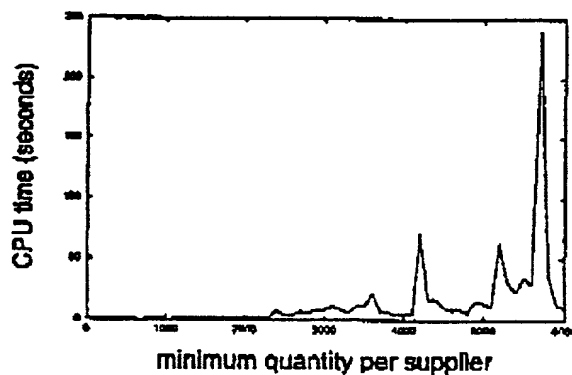


FIG. 11(b) Varying the total minimum quantity per supplier constraint